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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,065	11/18/2003	Paige Bushner	14538US02	4795
23446 7590 01/23/2007 MCANDREWS HELD & MALLOY, LTD 500 WEST MADISON STREET SUITE 3400 CHICAGO, IL 60661			EXAMINER LE, NHAN T	
			ART UNIT	PAPER NUMBER
			2618	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/23/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/716,065

Applicant(s)

BUSHNER, PAIGE

Examiner

Nhan T. Le

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11, 14-38, 40 and 42 is/are rejected.
- 7) ☒ Claim(s) 12, 13, 39, 41 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 2, 3, 8-11, 14, 15, 19-20, 31-38, 40, 42 are rejected under 35

U.S.C. 103(a) as being unpatentable over Hirata et al (2002/0059651) in view of Sugar et al (US 20030203743).

As to claims 1, 31, 42, Hirata teaches a system for an integrated set-top box, the system comprising: a single integrated circuit chip comprising: a first satellite receiver demodulator (see fig. 2b, 2a, 3a, paragraphs 0060-0062); at least a second satellite receiver demodulator (see fig. 2b, 2b, 3b, paragraphs 0060-0062); and at least one processor (see fig. 2b, 4, paragraphs 0060-0062) Hirata fails to teach wherein the receivers are integrated within the single integrated circuit chip. Sugar teaches wherein the receivers are integrated within the single integrated circuit chip (see fig. 1, number 20, paragraph 034). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Sugar into the system of Sugar in order to provide significant cost and space/area savings.

As to claim 2, the combination of Hirata and Sugar teaches wherein the at least one processor comprises at least one data transport processor (see paragraph 0062).

As to claims 3, 8, the combination of Hirata and Sugar teaches a programmable memory integrated within the single integrated circuit chip (see paragraph 0062); wherein the programmable memory is a one-time programmable memory (see paragraph 0062).

As to claims 9, 32, the combination of Hirata and Sugar teaches at least one video decoder integrated within the single integrated circuit chip and coupled to the at least one processor (see paragraph 0013).

As to claim 10, the combination of Hirata and Sugar teaches wherein the at least one video decoder is a standard definition MPEG-2 video decoder (see paragraph 0069).

As to claims 11, 33, 34, 37, 38, the combination of Hirata and Sugar teaches at least one video and graphics display engine integrated within the single integrated circuit chip and coupled to the at least one video decoder (see paragraph 0062).

As to claims 14, 15, 35, 36, 40, the combination of Hirata and Sugar teaches at least one audio decoder integrated within the single integrated circuit chip and coupled to the at least one processor, wherein the at least one audio decoder is an MPEG-2 audio decoder (see paragraph 0003).

As to claim 19, the combination of Hirata and Sugar teaches a digital satellite equipment control bus integrated within the single integrated circuit chip (see paragraph 0012).

As to claim 20, the combination of Hirata and Sugar teaches at least one of a plurality of peripheral interfaces comprising a serial peripheral interface, general

Art Unit: 2618

purpose input/output pins, integrated within the single integrated circuit chip (see paragraphs 0080-0083).

2. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirata et al (2002/0059651) in view of Sugar et al (US 20030203743) further in view of Dorenbosch et al (US 6,256,493).

As to claims 4-6 the combination of Hirata and Sugar fails to teach wherein the programmable memory stores at least one of security information and configuration information for the single integrated circuit chip; wherein the security information comprises at least one of a security key and a device identifier (ID); wherein the device identifier comprises at least one of an electronic serial number and an address.

Dorenbosch teaches wherein the programmable memory stores at least one of security information and configuration information for the single integrated circuit chip; wherein the security information comprises at least one of a security key and a device identifier (ID); wherein the device identifier comprises at least one of an electronic serial number and an address (see col. 4, lines 1-50). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Dorenbosch into the system of Hirata and Sugar in order to prevent unauthorized access to the device.

3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirata et al (2002/0059651) in view of Sugar et al (US 20030203743); Dorenbosch et al (US 6,256,493) further in view of Hendrickson et al (US 5, 384,847).

As to claim 7, the combination of Hirata, Sugar and Dorenbosch fails to teach wherein the configuration information comprises at least one of configuration data and code for configuring the single integrated circuit chip. Hendrickson teaches wherein the configuration information comprises at least one of configuration data and code for configuring the single integrated circuit chip (see col. 10, lines 22-39). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Hendrickson into the system of Hirata, Sugar and Dorenbosch in order to provide the higher level of security for the system.

4. Claims 16-18, 21-27, 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirata et al (2002/0059651) in view of Sugar et al (US 20030203743) further in view of Middeke et al (US 6,445,907).

As to claim 16, the combination of Hirata and Sugar fails to teach least one audio digital-to-analog converter integrated within the single integrated circuit chip and coupled to the at least one audio decoder. Middeke teaches at least one audio digital-to-analog converter integrated within the single integrated circuit chip and coupled to the at least one audio decoder (see fig. 2, numbers 54, RF, col. 4, lines 25-39). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Middeke into the system of Hirata and Sugar in order to down convert the received signal.

As to claims 17, 18, the combination of Hirata, Sugar and Middeke teaches at least one memory controller integrated within the single integrated circuit chip and coupled to at least the at least one processor; wherein the at least one memory

Art Unit: 2618

controller comprises a DRAM memory controller (see Middeke fig. 2, numbers 54, RF, col. 4, lines 4, 25-39).

As to claims 21, 22, the combination of Hirata, Sugar and Middeke teaches at least one read-only memory integrated within the single integrated circuit chip; wherein the at least one read-only memory comprises a CPU boot ROM and a FLASH (see Middeke col. 4, lines 25-39, col. 5, lines 60-67).

As to claims 23, 24, the combination of Hirata, Sugar and Middeke teaches at least one debug port integrated within the single integrated circuit chip, wherein the debug port comprises a JTAG port or any variation thereof (see Middeke col. 4, lines 25-39).

As to claims 25, 26, the combination of Hirata, Sugar and Middeke teaches at least one card reader integrated within the single integrated circuit chip, wherein the card reader is a smart card reader (see Middeke col. 4, lines 25-39).

As to claim 27, the combination of Hirata, Sugar and Middeke teaches one voltage regulator integrated within the single integrated circuit chip (see Middeke col. 6, lines 56-67).

As to claim 29, the combination of Hirata, Sugar and Middeke teaches one telephony modem integrated within the single integrated circuit chip (see Middeke col. 6, lines 56-67).

As to claim 30, the combination of Hirata, Sugar and Middeke teaches wherein the first satellite receiver demodulator and the second satellite receiver demodulator are

Art Unit: 2618

at least one of QPSK demodulators (see Middeke col. 4, lines 25-39, col. 7, lines 26-42).

5. Cláim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirata et al (2002/0059651) in view of Sugar et al (US 20030203743) further in view of Bauer (US 2001/0024962).

As to claim 28, the combination of Hirata and Sugar fails to teach one phase lock loop integrated within the single integrated circuit chip. Bauer teaches one phase lock loop integrated within the single integrated circuit chip (see paragraph 017). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Bauer into the system of Hirata and Sugar in order to control the frequency in the IC system.

***Allowable Subject Matter***

Claims 12, 13, 39, 41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claim 12, the applied reference fails to teach comprising at least one video encoder integrated within said single integrated circuit chip and coupled to said at least one video and graphics display engine as cited in the claim.

As to claim 39, the applied reference fails to teach comprising converting within said single integrated circuit chip, said second encoded digital video signal to a second analog video signal as cited in the claim.



As to claim 41, the applied reference fails to teach comprising converting within said single integrated circuit chip, said second decoded digital audio signal to a second analog audio signal as cited in the claim.

***Response to Arguments***

6. Applicant's arguments with respect to claims 1-42 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ahlbrecht et al (US 20040088111) teaches apparatus for improve integrity of wide area differential satellite navigation system.

Shanks et al (US 20020167405) teaches RF identification architecture.

Gurantz et al (US 7,130,576) teaches signal selector and combiner for broadband content distribution.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Le whose telephone number is 571-272-7892. The examiner can normally be reached on 08:00-05:00 (Mon-Fri).

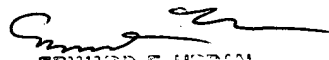
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2618

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Nhan Le



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